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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,109	09/26/2003	Todd Ames	2005.19	7731
29494	7590	03/02/2006	EXAMINER	
HAMMER & HANF, PC 3125 SPRINGBANK LANE SUITE G CHARLOTTE, NC 28226			VANATTA, AMY B	
			ART UNIT	PAPER NUMBER
			3765	

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/672,109

**Applicant(s)**

AMES ET AL.

**Examiner**

Amy B. Vanatta

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21, 23-30 and 32-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 is/are allowed.
- 6) ☒ Claim(s) 19-21, 23-30 and 32-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 28 is objected to because of the following informalities: The claim contains a typographical error. Specifically, "the steps of" in line 2 should be deleted. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 19-21, 23-30 and 32-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Ames et al (US 6,253,431).

In US 6,253,431, Ames et al disclose a method and apparatus for making an absorbent composite including spreading a crimped tow in a direction perpendicular to the tow's travel by a banding jet 130. The tow is deregistered by roller assemblies 40, 60, 70 (see col. 4, lines 21-25 and col. 5, lines 1-4). Ames et al disclose a step of shaping the deregistered tow by means of device 240. A particulate is distributed onto the shaped tow by assembly 120, as claimed. Regarding the 35 U.S.C. 112, sixth paragraph "means plus function" limitations recited in claim 28, Ames discloses a means for spreading (130) which is an air banding jet, which is the same means for

spreading disclosed by applicants. The means for deregistering the tow which is disclosed by Ames has the same structure for performing the same function as disclosed by applicant, that is, de-registering rollers (see roller assemblies 40,60,70 of Ames). The means for shaping the deregistered tow (240) disclosed by Ames is the same as the means for shaping disclosed by applicants (see page 11 of applicants' specification). A feeder 120 forms a means for distributing the particulate onto the tow. The feeder 120 of Ames appears to be equivalent to the particulate distribution apparatus disclosed as the "means for distributing" of applicants.

The roller assemblies of Ames which deregister the tow comprise at least two pairs of rollers (42,44; 62,64; 72,73). Each pair of rollers comprises a metal-faced roller (42, 62, 72) and a rubber-faced roller (42,62,72). Ames discloses that the metal roller may be grooved or threaded as in claims 20 and 29 (col. 4, lines 34-35 and 48-49). The rubber roller is smooth as claimed. The pairs of rollers are vertically aligned, with one roller (42, 62, or 72) over the other (44, 64, or 74, respectively) as claimed.

Ames discloses that one pair of rollers rotates faster than the other pair of rollers (col. 4, lines 49-54) as in claims 23 and 32. Specifically, the pair of rollers 70 rotate faster than the pair of rollers 60. Ames teaches that the faster roller pair (70) is preferably 30-50 percent faster than the slower roller pair (60) (see col. 4, lines 53-54). Thus, the speed ratio calculated by dividing the speed of the faster rollers by the speed of the slower rollers is 1.3 (for 30 percent faster) to 1.5 (for 50 percent faster). The range of 1.3 to 1.5 falls within the ranges recited in claims 24-25 and 33-34.

The tow is shaped to a substantially rectangular cross section (col. 6, lines 56-57) as in claims 26 and 35. A liquid is applied to the tow by liquid additive assembly 80, as in claims 27 and 36.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 19-21, 23-30 and 32-36 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Ames et al (US 6,253,431) in view of Self et al (US 3,769,669).

In US 6,253,431, Ames et al disclose a method and apparatus for making an absorbent composite including spreading a crimped tow in a direction perpendicular to the tow's travel by a banding jet 130. The tow is deregistered by roller assemblies 40, 60, 70 (see col. 4, lines 21-25 and col. 5, lines 1-4). Ames et al disclose a step of shaping the deregistered tow by means of device 240. A particulate is distributed onto the shaped tow by assembly 120, as claimed. Regarding the 35 U.S.C. 112, sixth paragraph "means plus function" limitations recited in claim 28, Ames discloses a means for spreading (130) which is an air banding jet, which is the same means for spreading disclosed by applicants. The means for deregistering the tow which is disclosed by Ames has the same structure for performing the same function as

disclosed by applicant, that is, de-registering rollers (see roller assemblies 40,60,70 of Ames). The means for shaping the deregistered tow (240) disclosed by Ames is the same as the means for shaping disclosed by applicants (see page 11 of applicants' specification). A feeder 120 forms a means for distributing the particulate onto the tow. The feeder 120 of Ames appears to be equivalent to the particulate distribution apparatus disclosed as the "means for distributing" of applicants.

The roller assemblies of Ames which deregister the tow comprise at least two pairs of rollers (42,44; 62,64; 72,73). Each pair of rollers comprises a metal-faced roller (42, 62, 72) and a rubber-faced roller (42,62,72). Ames discloses that the metal roller may be grooved or threaded as in claims 20 and 29 (col. 4, lines 34-35 and 48-49). The rubber roller is smooth as claimed.

With regard to claims 19 and 28, these claims recite "said pairs of rollers being vertically aligned, one over the other or at any angle between vertically aligned and horizontally aligned, but not including horizontally aligned". As set forth in the rejection above, it appears that this limitation reads on pairs of rollers which each comprise a roller vertically aligned over another roller, as shown by Ames (see one roller (42, 62, or 72) over the other roller(44, 64, or 74)). Although the claim does not clearly recite that one pair is over the other pair, it appears to be applicants' position that the claimed vertical alignment of the pairs of rollers requires such a structure. Assuming *arguendo* that the claim language requires a pair of rollers vertically aligned over another pair of rollers, such a structure is not shown by Ames. Such vertically aligned roller pairs are well known in the textile art. Roller pairs are commonly provided in vertical alignment

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with one another, such as shown by Self et al. Self et al shows a pair of rollers (36) vertically aligned with a second pair of rollers (40). Self shows one pair (36) over the other pair (40) as in claims 19 and 28. Roller pairs are known to be provided in vertical alignment, horizontal alignment, or at angles in between vertical and horizontal, with the placement or alignment being chosen depending upon considerations such as the amount of gravitational forces desired to act on the textiles during treatment by the rollers and space considerations (i.e. the amount and configuration of space in which the machine is to be placed). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the roller pairs of Ames in vertical alignment, with one pair over the other pair, such as shown by Self et al, in order to have greater gravitational forces acting on the tow during deregistration and in order to provide a more compact system. Moreover, in the specification, applicant merely states "the pair of rollers 42 and 48 may be vertically oriented (as shown), horizontally oriented, or at some angle therebetween" (see page 9 of specification). Thus, applicant fails to disclose any criticality as to the orientation of the roller pairs. Accordingly, it would have been obvious to one having ordinary skill in the art to position the rollers of Ames in vertical alignment since rollers pairs are known to be provided in either vertical alignment such as shown by Self et al, or horizontal alignment, or any angle in between, and in the absence of any criticality as to the orientation of the rollers, it appears that the inventions of applicant and of Ames would perform equally well with the rollers in any of a variety of orientations, since applicant fails to disclose that the roller orientation solves any stated problem or is for any particular purpose.

Ames discloses that one pair of rollers rotates faster than the other pair of rollers (col. 4, lines 49-54) as in claims 23 and 32. Specifically, the pair of rollers 70 rotate faster than the pair of rollers 60. Ames teaches that the faster roller pair (70) is preferably 30-50 percent faster than the slower roller pair (60) (see col. 4, lines 53-54). Thus, the speed ratio calculated by dividing the speed of the faster rollers by the speed of the slower rollers is 1.3 (for 30 percent faster) to 1.5 (for 50 percent faster). The range of 1.3 to 1.5 falls within the ranges recited in claims 24-25 and 33-34.

The tow is shaped to a substantially rectangular cross section (col. 6, lines 56-57) as in claims 26 and 35. A liquid is applied to the tow by liquid additive assembly 80, as in claims 27 and 36.

#### ***Allowable Subject Matter***

6. Claims 1-18 are allowed.

#### ***Response to Arguments***

7. Applicant's arguments filed 12/19/05 have been fully considered but they are not persuasive with regard to claims 19-21, 23-30 and 32-36. Applicant argues that Ames discloses roller pairs which are "horizontally disposed" rather than "vertically aligned". As noted in section 3 above, however, the claims do not clearly recite that the roller pairs are positioned with one roller pair over the other roller pair. It appears that the claims read on the roller pairs of Ames, in which each roller pair consists of vertically aligned rollers. See, e.g., roller 42 which is vertically aligned with roller 44, one over the



other. Moreover, even if the claims are interpreted to require that the pair of rollers is positioned over the other pair of rollers, such a vertical alignment would be obvious for the rollers of Ames. See section 5 above. Roller pairs are commonly provided in vertical alignment with one another, such as shown by Self et al. Roller pairs are known to be provided in vertical alignment, horizontal alignment, or at angles in between vertical and horizontal, with the placement or alignment being chosen depending upon considerations such as the amount of gravitational forces desired to act on the textiles during treatment by the rollers and space considerations. Furthermore, in the specification, applicant merely states "the pair of rollers 42 and 48 may be vertically oriented (as shown), horizontally oriented, or at some angle therebetween" (see page 9 of specification). Thus, applicant fails to disclose any criticality as to the orientation of the roller pairs. Applicant fails to disclose that the roller orientation solves any stated problem or is for any particular purpose.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

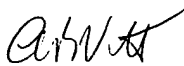
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy B. Vanatta whose telephone number is 571-272-4995. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on 571-272-4983. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Amy B Vanatta  
Primary Examiner  
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